

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated March 11, 2010. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-9 and 21-31 are pending in the Application. Claim 1 is an independent claim. The claims are amended herein to correct informalities noted upon a review of the claims such as an inconsistent use of the terms "said" and "the" and in an effort to address the concerns raised by the office action. The amendments to the claims are not intended to narrow the scope of the prior claims and is merely submitted to further prosecution of this matter and to either promote allowance of the claims or at least, reduce pending issues and place the claims into a better condition for appeal. Accordingly, consideration and entrance of the amendments to the claims is respectfully requested.

In the Final Office Action, the amendment filed January 8, 2010 is objected to under 35 U.S.C. §132(a) for allegedly adding new matter into the disclosure of the invention. Applicants respectfully traverse this objection and requirement. It is believed and maintained that a person of ordinary skill in the art would appreciate from the description and figures of the originally filed application that the objected to claim language is not new matter. However, in the interest of advancing consideration and allowance of the claims, Applicants have elected to amend the specification to address the concerns raised by the Final Office Action. In this regard, the specification has been amended to indicate that a user may see "where or in what manner an interaction with the interface is to be made to obtain a predefined function of the electronic devices/systems cooperating with the

interface, such as play, rewind, fast forward, and stop, as depicted on the actuator 30 shown in FIG. 2." Accordingly, consideration and entrance of the amendment to the specification is respectfully requested.

In the Final Office Action, claim 6 is rejected under 35 U.S.C. §112, first paragraph. Applicants respectfully traverse this rejection. However, in the interest of expediting consideration and allowance of the pending claims, the Applicants have elected to amend claim 6 to address the concerns raised in the Final Office Action. Accordingly, it is respectfully submitted that claim 6 is in proper form and it is respectfully requested that this rejection under 35 U.S.C. §112, first paragraph, be withdrawn.

Claim 8 is rejected under 35 U.S.C. §112, first paragraph. Applicants respectfully traverse this rejection. However, in the interest of advancing consideration and allowance of the claims, Applicants have elected to amend claim 8 to address the concerns raised by the Final Office Action. In this regard, claim 8 is amended to recite (illustrative emphasis provided) that "the actuator includes the visual markings such that a user may see where or in what manner a mechanical interaction with the user interface should be made to obtain the predefined function." Applicants note that additional support for this amendment is indicated by the symbols depicted in FIGs. 2-5 and particularly FIGs. 4, 5 which are described and depicted as (illustrative emphasis provided) "a plan view of the proportional input interface ... with the interface being in a manipulated or operative state." (See, present application, page 3, lines 13-16.) It is respectfully submitted that the explanation provided above and the amendment to claim 8 overcomes the 35 U.S.C. §112, first paragraph rejection and an indication to that effect is respectfully requested.

Claims 29 and 30 are rejected under 35 U.S.C. §112, first paragraph. Applicants respectfully traverse this rejection. However, in the interest of advancing consideration and allowance of the claims, Applicants have elected to amend claim 29 to address the concerns raised by the Office Action. In this regard, claim 29 is amended to recite (illustrative emphasis provided) that "said conductive fibers include a conductive semi-fluid sleeve ...," as described in the specification (e.g., see, the present application, page 6, lines 1-19). It is respectfully submitted that the explanation provided above and the amendment to claim 29 overcomes the 35 U.S.C. §112, first paragraph rejection and an indication to that effect is respectfully requested.

Claims 1-9, 21, 22 and 24-27 are rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the enablement requirement. Specifically, the Final Office Action states that "the specification fails to disclose how to make a textile construction wherein actuator moves or mechanically interacts with a conductive elastomeric material to cause the conductive elastomeric material to produce a signal. For example, the specification fails to disclose how to make a signal via the movement or mechanical interaction between the actuator and the conductive elastomeric material."

Applicants respectfully traverse this rejection.

The specification of the originally filed application provides (illustrative emphasis provided): "[t]he use of electronics in various manufactured materials is well known; see for example, U.S. Patent Nos. 6,360,615 B1, 6,210,771 B1, and 5,371,326; U.S. Patent Application Publication No. 2002/0135457 A1; PCT International Patent Publication Nos. WO 02/055923 A1 and WO 02/32665 A1; and/or UK Patent Application No. GB 2 373 863.

Devices such as conductive traces, bio-sensors, electrodes, computers, electronic circuits and the like have all been incorporated into textiles." (E.g., see, the present application, page 1, lines 7-13.) The present application further provides that "the one or more areas of conductive elastomeric material 20 have one or more conductive and/or physical characteristics that change in response to being stretched or manipulated in some fashion. For example, the conductive elastomeric material 20 can have piezoelectric characteristics such as those provided by any of the following known materials: a polypyrrole/lycra material, a polypyrrole/nylon material, a polypyrrole/polyester material, or any conjugated polymer, and ion-implanted polymers, or any combination of such materials." (E.g., see, the present application, page 4, line 20 to page 5, line 4.)

The present application also provides that "[i]t is noted that the conductive elastomeric material 20 can also be fashioned from a combination of conductive fibers 22 and non-conductive fibers 24 using any known conventional method for weaving, sewing and/or knitting." . (E.g., see, the present application, page 6, lines 1-3.) "The actuator 30 and/or the interface 10 can also be attached to a surface 5 of the conductive elastomeric textile 1 via any suitable method known in the art, such as for example, knitting, embroidering, weaving or laminating." . (E.g., see, the present application, page 8, lines 8-10.) "The connecting/integrating of the interface 10 to/with the garment 40 can be accomplished in any manner known in the art for accomplishing such operations." (E.g., see, the present application, page 8, lines 14-16.)

It is therefore respectfully submitted that the specification as filed enables one skilled in the art of, for example, the art described in the patent applications and publications cited in the present application, to make and use the textile construction recited in the claims.

It is respectfully submitted that the explanation provided above and the amendment to the claims overcomes the 35 U.S.C. §112, first paragraph rejection of claims 1-9, 21, 22 and 24-27 and an indication to that effect is respectfully requested.

In the Office Action, claim 23 is rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the enablement requirement. Specifically, the Office Action states that the specification does not enable using "said displacement ratio as claimed." Applicants respectfully traverse this rejection and request reference to the argument for claims 1-9, 21, 22 and 24-27 provided above.

Further, as found in a Merriam-Webster dictionary, the plain meaning of "displacement" is "the act or process of displacing: the state of being displaced," and the plain meaning of "displace" is "to remove from the usual or proper place; to move physically out of position." Also, as found in a Merriam-Webster dictionary, the plain meaning of "ratio" is "the indicated quotient of two mathematical expressions: the relationship in quantity, amount, or size between two or more things." Accordingly, Applicants assert that the plain meaning of "displacement ratio," within the context of conductive elastomeric materials, as used in reference to the present claims, relates to the ratio of the amount of movement in at least two directions that areas of the conductive elastomeric material undergo during mechanical interaction, therewith, and that this plain meaning is well known

in the art of conductive elastomeric materials. Accordingly, withdrawal of the rejection of claim 23 is respectfully requested.

Claim 28-31 are rejected under 35 U.S.C. §112, first paragraph. Applicants respectfully traverse these rejections and request reference to the argument for claims 1-9, 21, 22, and 24-27 provided above. Further, the specification provides (illustrative emphasis provided) "[i]t is noted that the conductive elastomeric material 20 can also be fashioned from a combination of conductive fibers 22 and non-conductive fibers 24 using any known conventional method for weaving, sewing and/or knitting. Preferably each conductive fiber 22 can have any of a variety of forms. For example, conductive fibers 22 can have a conductive threadlike core enclosed by a conductive semi-fluid sleeve." (E.g., see, the present application, page 6, lines 1-6.)

Further, as found in a Merriam-Webster dictionary, the plain meaning of "semi-" is "to some extent : partly : incompletely : partial : incomplete : having some of the characteristics of." Also, as found in a Merriam-Webster dictionary, the plain meaning of "fluid" is "having particles that easily move and change their relative position without a separation of the mass and that easily yield to pressure: capable of flowing: subject to change or movement: characterized by or employing a smooth easy style." Additionally, as found in a Merriam-Webster dictionary, the plain meaning of "sleeve" is "a tubular part designed to fit over another part." Accordingly, Applicants assert that the plain meaning of "semi-fluid sleeve," within the context of conductive elastomeric materials as used in this invention, refers to the partially, easily movable, conductive covering of the inner fiber core." It is respectfully submitted that the explanation provided above and the amendment

to the claims overcomes the 35 U.S.C. §112, first paragraph rejection of claims 28-31 and an indication to that effect is respectfully requested.

Claims 30 and 31 are rejected under 35 U.S.C. §112, second paragraph. Applicants respectfully traverse this rejection. However, in the interest of advancing consideration and allowance of the claims, Applicants have elected to amend claim 29 to address the concerns raised by the Office Action. In this regard, claim 29 is amended to recite (illustrative emphasis provided) that "said conductive fibers include a conductive semi-fluid sleeve ...," as provided in the specification (e.g., see, page 6, lines 1-19). It is respectfully submitted that the explanation provided above and the amendment to the claims overcomes the 35 U.S.C. §112, second paragraph rejection of claims 30 and 31 and an indication to that effect is respectfully requested.

In the Final Office Action, claims 1-6, 8, 9, and 21-27 are rejected under 35 U.S.C. §102(b) or in the alternative under 35 U.S.C. §103(a) over U.S. Patent No. 6,360,615 to Smela ("Smela"). Claims 1-9 and 21-31 are rejected under 35 U.S.C. §102(b) or in the alternative under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2002/0075232 to Daum ("Daum"). Claims 6 and 7 are rejected under 35 U.S.C. §103(a) over Smela in view of U.S. Patent No. 6,102,878 to Nguyen ("Nguyen"). Claims 28-31 are rejected under 35 U.S.C. §103(a) over Smela in view of Daum. Claims 28-31 are rejected under 35 U.S.C. §103(a) over Smela in view of U.S. Patent No. 5,346,649 to Karna ("Karna").

These rejections are respectfully traversed. It is respectfully submitted that claims 1-9 and 20-31 are allowable over Smela, Daum, Nguyen, and Karna, alone, and in any combination, for at least the following reasons.

Smela shows a position/movement sensitive effect-emitting strain gauge that utilizes an elastically conductive fabric that changes properties as it is stretched and relaxed (see, Smela, Col. 4, lines 18-34). In an embodiment shown in FIG. 5 and described in col. 11, line 62 through col. 12, line 6 that is cited in the Final Office Action, Smela describes that conventional fabric or plastic may be attached to the elastically conductive material for improved structural and mechanical properties. Smela is clear that these areas are "regions of the wearable device that do not generate a signal." Smela further states that additional structural components may be utilized as a housing. As is clear from a simple examination of Smela, Smela does not show an interface. Smela further does not provide visual markings such that a user may see where or in what manner the mechanical interaction with the user interface should be made to obtain a predefined function of an electronic device associated with the textile construction that responds to the at least one electronic signal. Further, nowhere within the four corners of Smela is it disclosed or suggested that an actuator operates with the conductive elastomeric material such that a user interaction with the actuator does one of move and mechanically interact with the conductive elastomeric material to cause said conductive elastomeric material to produce the signal.

Daum shows a data glove formed of flexible textile material, a portion of which has inner and outer layers with a layer of sensors situated between the inner and outer textile layers (see, FIG. 1 and paragraphs [0009] and [0033]). As is clear from a review of Daum, nowhere within the four corners of Daum is it disclosed or suggested that an actuator operates with the conductive elastomeric material such that a user interaction with the

actuator does one of move and mechanically interact with the conductive elastomeric material to cause said conductive elastomeric material to produce the signal. Further, Daum does not provide visual markings such that a user may see where or in what manner the mechanical interaction with the user interface should be made to obtain a predefined function of an electronic device associated with the textile construction that responds to the at least one electronic signal.

Nguyen is just cited to show that the use of Velcro or rubber as a finger strap is known, however, it is respectfully submitted that this has little to do with the claims as presented.

Karna is just cited to show that an electrically conductive plastic is known however, it is respectfully submitted that this has little to do with the claims as presented.

It is respectfully submitted that the textile construction of claim 1 is not anticipated or made obvious by the teachings of Smela, Daum, Nguyen, and Karna. For example, the combination of Smela, Daum, Nguyen, and Karna does not disclose or suggest, a textile construction that amongst other patentable elements, comprises (illustrative emphasis added) "a conductive elastomeric material suitable for converting a mechanical interaction therewith into at least one electronic signal; at least one area of the conductive elastomeric material, wherein mechanical interaction in proximity therewith produces the at least one electronic signal; and an actuator in contact with a surface of the conductive elastomeric material that cooperates with the at least one area of the conductive elastomeric material to provide a user interface such that a user mechanical interaction with the actuator produces the at least one electronic signal, wherein the actuator is formed from one or more of a

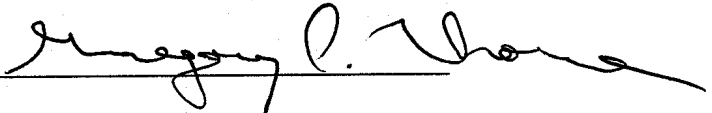
plastic and a rubber, and wherein the cooperation between the actuator and the at least one area of the conductive elastomeric material includes at least one of movement and mechanical interaction of the actuator with respect to the at least one area of the conductive elastomeric material, and wherein the actuator is operated with respect to visual markings such that a user may see where or in what manner the mechanical interaction with the user interface should be made to obtain a predefined function of an electronic device associated with the textile construction that responds to the at least one electronic signal," as recited in claim 1.

Based on the foregoing, the Applicants respectfully submit that independent claim 1 is patentable over Smela, Daum, Nguyen, and Karna, alone, and in any combination, and notice to this effect is earnestly solicited. Claims 2-9 and 21-31 respectively depend from claim 1 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position, or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicants have made a diligent and sincere effort to place this application in
condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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